

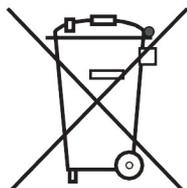
# Ether2DMX8

## User Manual



**Martin**

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# Introduction

Thank you for purchasing the Ether2DMX8 Router. This device is a multi purpose DMX and Artnet processor with many advanced features.

Please read the manual carefully and in its entirety to understand all functions of the unit.

For quick setup as a Artnet Output device without advanced features jump ahead to the [Factory Presets](#) which allow fast and uncomplicated setup of the most common applications.

Further information, updated user manuals and software can be found at [www.martin.com](http://www.martin.com)

## Ether2DMX8 Safety Information



The Ether2DMX8 Router is not for household use. For safe operation, read this manual before use and follow the safety precautions listed below.

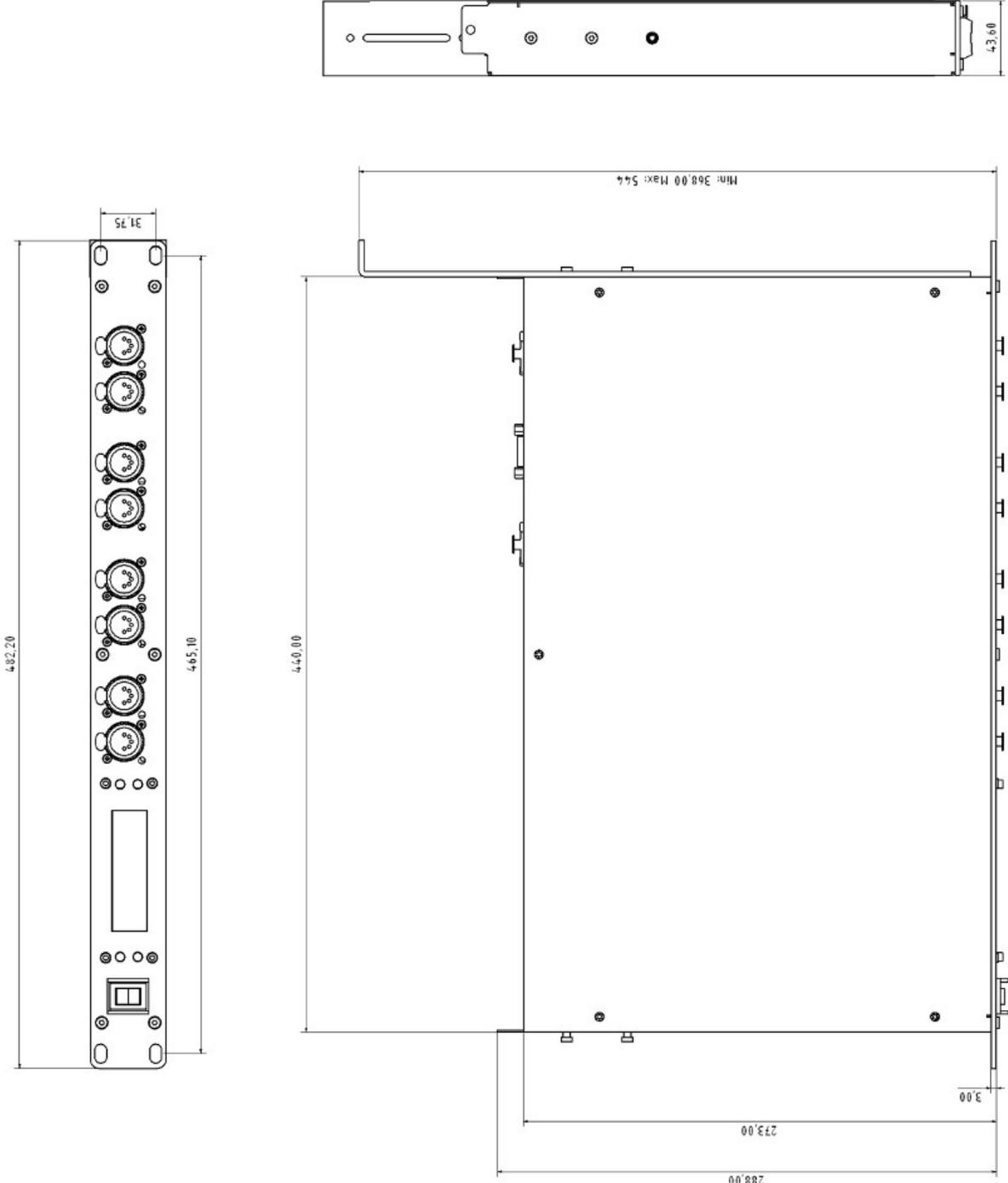
If you have questions about how to operate the device safely, please contact your Martin distributor or dealer.

- Disconnect the device from AC power before removing fuses or any part, and when not in use.
- Always ground (earth) the device electrically.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.
- Do not expose the device to rain or moisture.
- Never attempt to bypass fuses. Always replace defective fuses with ones of the specified type and rating.
- Refer all service to a qualified technician.
- Do not modify the device or install other than genuine Martin parts.
- Caution: Risk of Fire and Electrical Shock. Use only in dry locations.
- Caution: Risk of Explosion if Battery is replaced by an incorrect type. Dispose of used batteries according to local environmental regulations.

### Installations Instructions

- Equipment is supposed to be installed into the protective environment of a 19" cabinet. Use otherwise at your own risk.

# Dimensions



## Features

The Ether2DMX8 device offers a lot of unique and powerful features.

Almost all settings can be accessed from the built in display and menu system.

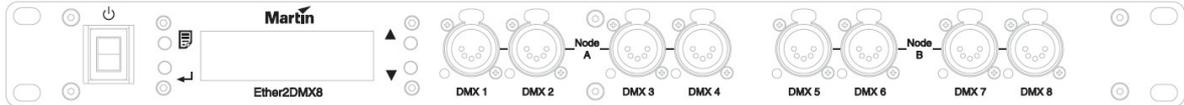
All settings are available from the integrated web configuration which allows remote access to the Ether2DMX8 device from any web browser.

This router essentially packages the features of two standard Artnet converters, DMX merger, DMX patch-bay and a DMX recorder into one compact unit.

- Artnet to DMX conversion
- DMX to Artnet conversion
- 8 Factory Presets
- 10 User Presets
- 99 Cues with Fade Time, Hold Time and Cue linking
- 8 Switch Inputs
- DMX Splitter
- DMX Monitor
- DMX and Artnet Test Generator
- USB port for backup and firmware updates

# Connections

## Front Connections



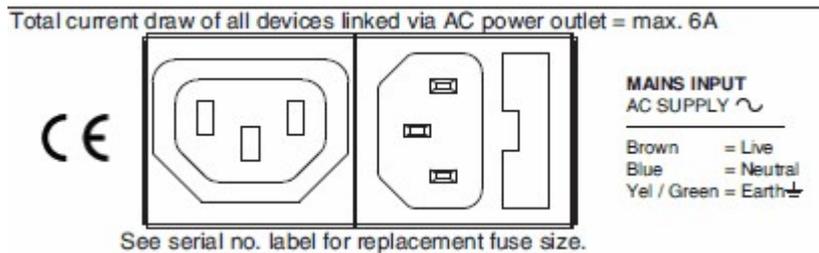
## Back Connections



## AC Connections

On the back of the unit an IEC connection is provided for the AC power connection. Use a cable with the appropriate connector for your local electrical system.

Always connect ground and NEVER use a ground lift adapter when connecting the Ether2DMX8 device.



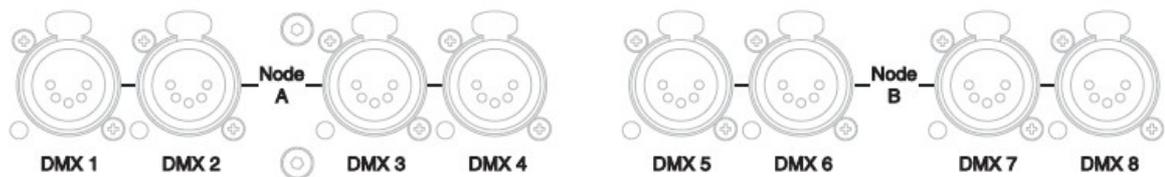
In addition to the input a loop through IEC output connection is provided. This allows daisy chaining power between multiple Ether2DMX8.

Do not exceed more than 6A total power draw from the IEC output.

## DMX Connections

DMX Output connections are 5pin female XLR connectors.

The pin-out on all sockets is pin 1 to shield, pin 2 to cold (-), and pin 3 to hot (+). Pins 4 and 5 are not used.



Connect the DMX cables carefully to the desired ports.

Provide support and strain relief to prevent damage to the DMX ports. Avoid connecting heavy FOH Snakes directly to the ports.

Adapters may be required for certain functions. The following adapters are available from [Neutrik](http://www.neutrik.com)

### 3 pin DMX Output



**Neutrik NA3F5M**  
XLR 3 pole female - XLR 5 pole male

### 5 pin DMX Input



**Neutrik NA5MM**  
5 pole XLR male - 5 pole XLR female

## Ethernet Data Connection

The Ethernet cable from the Artnet Source is connected on the back of the router into the port labeled "ETHERNET" . This is a Ethercon connector and the use of Ethercon cables is recommended. However any RJ45 connector is suitable.

Be careful not to plug the cable into the LINK port which is also an Ethercon connection, but with a blue ring around it.

To connect multiple Ether2DMX8 to an Artnet Source an Ethernet switch is required to split the data into the desired amount of streams. It is recommended to use an unmanaged switch to ensure accurate transfer of the Artnet Data without delay.

To connect a single Artnet Source like a Maxedia Pro media server to the router, use a RJ45 crossover cable.



Please note that the EtherDMX port of a Maxxyz Compact is auto sensing and a normal patch cable is sufficient for this connection.

The Ethernet connection is also used to connect a computer to the Ether2DMX8 for remote configuration via a web browser. Information about the web access can be found [here](#) in the manual.

## USB

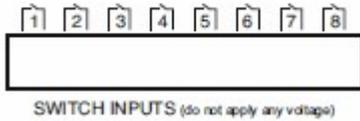
The back of the router provides USB connections for firmware updates and backups. Use commonly found USB sticks for any file transfer. The USB stick has to be formatted in FAT32 to be usable with the router.



**Do not use portable hard drives that draw high currents of the USB ports.**

## Switch Inputs

8 Inputs are provided that can be mapped to various functions of the Ether2DMX8 router. The inputs are simple contact closures.



Do not apply any voltage to contacts. Doing so will damage the router and is not covered under warranty !

The router is shipped with four terminal blocks that connect to the ports. Lost or missing blocks can be purchased from various electronic vendors.

## Others

The back of the Ether2DMX8 offers additional connections that may be used in future software versions.

Currently none of these connections are active and are not required for the operation of the router.

# Menu

## Navigating the Menu System



The menu is accessed by the 4 buttons surrounding the display.

### (Menu)

The menu button has several functions

- Access the Menu
- Exit the Menu
- Step backwards on certain operations

### (Enter)

Enter is used to open a menu item or to confirm a choice or setting.



Arrows are used to navigate the menu tree or to increase and decrease values.

## Home Display Screen

The home display is used to indicate the status of the router and confirm the main settings quickly.

This is the standard display shown after powering on the router.



```
002.168.017.075✓  
Ether2DMX8 Ax Bx
```

The top row indicates the IP address 2.168.17.75 of the router. The "✓" check mark at the end indicated that Artnet data is being received by the router.

Below it shows the router name Ether2DMX8 and the two internal Artnet nodes. Here the "x" indicates that no Artnet traffic is received.

Navigate to the next page with the arrow down key.



```
FP1 Maxxyz  
Cue OFF_
```

On the top row the current factory (FP) or user (UPr) preset is indicated, otherwise it reads "No Preset Active"

The CUE row indicates if a cue is currently running.

The next two pages down show the current DMX port configuration. The first page shows DMX ports 1 through 4.



```
1↑A 2↑ 3↓A 4  
001 CL1 007 OFF
```

DMX 1 is set to Node A (**A**) and Output (**↑**). The current DMX Universe on this port is 001.

DMX 2 is set to Output (**↑**) and to clone the DMX traffic from port 1 (**CL1**).

DMX 3 is set to Node A Input (**↓**). The current DMX Universe captured is 007.

DMX 4 is disabled (**OFF**)

5↑	*6↑B	7↑B	8↑B
MR1	000	007	008

DMX 5 is set to Output the contents of Merger 1

DMX 6 is set to send DMX value 0 on all 512 channels

DMX 7 is set to Artnet Output of 007.

DMX 8 is set to Artnet Output of 008.

# Factory Presets

The quickest way to set up the Ether2DMX8 router is to use factory presets. The router contains 10 of the most common settings that can be recalled quickly and without the need to study the manual completely.

Factory presets contain the necessary IP settings and all DMX port settings.

The Factory Presets are accessed in Menu #1. Use the MENU key to start the navigation, then press ENTER to enter Menu #1.

Use the arrow keys to navigate the Menu if necessary.



```
EXIT
1:Fact. Presets↓
```

Select the desired preset from the 8 choices and confirm with Enter.



```
1:Presets
#1 Maxxyz
```

# 1. Maxxyz

The preset is used for DMX output on all 8 ports from any Artnet source using the 2.x.x.x address range.

This includes all Maxxyz Consoles and many other lighting controllers in the market.



Use the up and down arrows to set the desired Universe range. Confirm with **OK** (Enter button)

**IP Address**      2.x.x.x  
**Subnet:**        255.0.0.0

DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX Out							

## 2. Maxedia

The preset is used for DMX output on all 8 ports from any Artnet source using the 10.x.x.x address range.

This includes all Maxedia Media Servers.



```
#2 Maxedia
OK Univ:001-008
```

Use the up and down arrows to set the desired Universe range. Confirm with **OK** (Enter button)  
Please note that changes in the IP address require a reboot of the Ether2DMX8.

**IP Address**      10.x.x.x

**Subnet:**        255.0.0.0

DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX Out							

### 3. Maxxyz/Maxedia

The preset is used for DMX output on all 8 ports from two Artnet source using the 2.x.x.x AND the 10.x.x.x address range.

This allows to use 4 ports for regular Artnet traffic from the Maxxyz console and use 4 ports for pixelmapping traffic from a Maxedia server.



```
#3 Node A
OK Maxx: 001-004
```

Use **OK** for the second screen.



```
#3 Node B
OK Mxed: 001-004
```

Use the up and down arrows to set the desired Universe ranges for Node A and B. Confirm with **OK** (Enter button)

Please note that changes in the IP address require a reboot of the Ether2DMX8.

**IP Address**      2.x.x.x + 10.x.x.x

**Subnet:**         255.0.0.0

DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX Out 2.x.x.x	DMX Out 2.x.x.x	DMX Out 2.x.x.x	DMX Out 2.x.x.x	DMX Out 10.x.x.x	DMX Out 10.x.x.x	DMX Out 10.x.x.x	DMX Out 10.x.x.x

## 4. 8x Input (MSD)

The preset is used for DMX input conversion to Artnet on all 8 ports using the 2.x.x.x address range. This includes Martin Show Designer and many other visualization programs. It can also be used to capture older consoles with no Artnet output and route them into an Artnet system.



```
#4 8xIN(MSD)
OK Univ:001-008
```

Use the up and down arrows to set the desired Universe range. Confirm with **OK** (Enter button)

**IP Address**      2.x.x.x  
**Subnet:**        255.0.0.0

DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX In							

## 5. 4 In - 4 Out

The preset is used for to intercept 4 Universes, capture them as Artnet with address range 2.x.x.x and output them again without changes.

Applications include capturing DMX streams for visualizers like Martin Show Designer with the ability to have the DMX signal connected to actual fixtures.



```
#4 4In-4Out
OK Univ:001-004
```

Use the up and down arrows to set the desired Universe range. Confirm with **OK** (Enter button)

**IP Address**      2.x.x.x

**Subnet:**        255.0.0.0

DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX In To Artnet	DMX In To Artnet	DMX In To Artnet	DMX In To Artnet	DMX Out from DMX 1	DMX Out from DMX 2	DMX Out from DMX 3	DMX Out from DMX 4

## 6. DMX Split 1-7

The Ether2DMX8 can be used as a DMX splitter with 1 Input to 7 Outputs. Any data received by DMX 1 is repeated on DMX 2 through 7.



DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX Input	DMX Out from DMX 1						

## 7. DMX Split 1-3

The Ether2DMX8 can be used as two DMX splitters with 1 Input to 3 Outputs.

Any data received by DMX 1 is repeated on DMX 2 through 4. Any data received by DMX 5 is repeated on DMX 6 through 7.



DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX Input	DMX Out from DMX 1	DMX Out from DMX 1	DMX Out from DMX 1	DMX Input	DMX Out from DMX 5	DMX Out from DMX 5	DMX Out from DMX 5

## 8. Artnet Clone

The preset is used to replicate a standard Artnet node with 4 Input ports and 4 output ports.

```
#8 Node A Output
OK Univ:001-004
```

Use **OK** for the second screen.

```
#8 Node B Input
OK Univ:001-004
```

Use the up and down arrows to set the desired Universe ranges for Node A and B. Confirm with **OK** (Enter button).

**IP Address**      2.x.x.x + 10.x.x.x  
**Subnet:**        255.0.0.0

DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX Out	DMX Out	DMX Out	DMX Out	DMX In	DMX In	DMX In	DMX In

## 9. Broadcast 2.x

This mode can be used if the Ether2DMX8 shows performance drops.

Performance problems can show as slowed down refresh rate or changes being out of sync on the different outputs.

The box processor can become overloaded by large amounts of Artnet traffic if Artnet is sent as Broadcast traffic. It is not recommended to send more than 32 Universes in Broadcast Mode.

However not every Artnet sender can handle Unicast.

This mode will adjust the internal data routing to reduce processor load, but it results in a non Artnet compliant device as the unit will calculate 8 Universes on a single Artnet Node (the specification is 2 Nodes of 4 ports).

Use this mode only if there is a problem using the Maxxyz Preset which is fully Artnet compliant.



#9 B-Cast 2.x  
OK Univ:001-008

Use the up and down arrows to set the desired Universe ranges for Node A and B. Confirm with **OK** (Enter button).

**IP Address**      2.x.x.x  
**Subnet:**        255.0.0.0

DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX Out							

## 10. Broadcast 10.x

This mode can be used if the Ether2DMX8 shows performance drops.

Performance problems can show as slowed down refresh rate or changes being out of sync on the different outputs.

The box processor can become overloaded by large amounts of Artnet traffic if Artnet is sent as Broadcast traffic. It is not recommended to send more than 32 Universes in Broadcast Mode.

However not every Artnet sender can handle Unicast.

This mode will adjust the internal data routing to reduce processor load, but it results in a non Artnet compliant device as the unit will calculate 8 Universes on a single Artnet Node (the specification is 2 Nodes of 4 ports).

Use this mode only if there is a problem using the Maxedia Preset which is fully Artnet compliant.

```
#10 B-Cast 10.x
OK Univ:001-008
```

Use the up and down arrows to set the desired Universe ranges for Node A and B. Confirm with **OK** (Enter button).

**IP Address**      10.x.x.x  
**Subnet:**        255.0.0.0

DMX 1	DMX 2	DMX 3	DMX 4	DMX 5	DMX 6	DMX 7	DMX 8
DMX Out							

# DMX Configuration

This menu allows to assign the desired options for the DMX ports.  
Use Menu #6 to access the DMX Configuration.

## DMX Port Options

Enter the DMX Configuration and use the arrow keys to browse to the desired DMX port.



The current settings can be seen easily on the bottom row.  
In this example DMX Port 1 is set to Output of Artnet Universe 001.

Hit Enter to access the settings menu.

The following settings are possible:

### Mode

<b>Output</b>	Artnet Output of a specific Universe
<b>Input</b>	Artnet Input of a specific Universe
<b>Disable</b>	The port is not active
<b>Send 0</b>	The port send a value of 0 on all 512 channels

### Source

Source setting is only available when the Mode is Output.

<b>IP</b>	The Output is generated from the Artnet Stream
<b>Clone 1- 8</b>	The Output is identical to the DMX data of another port
<b>Merge 1- 4</b>	The Output is generated from a Merge Slot ( <a href="#">see next chapter</a> )

## Universe

Universe Settings are available when the Mode is Input or Output.



```
DMX 1 Universe ↑
OK 017 ( 1-0 ) ↓
```

The Universe is indicated as a decimal number. In addition it is shown as the Artnet subnet and Universe number.

This makes it easy to work with consoles that do not use decimal Universe numbers for their Artnet Configuration.

Universe numbers can be set from 1 to 256 (0-0 to F-F) with the arrow keys. Confirm the desired Universe with the Enter key.

## Range

Range allows to limit the DMX channels submitted by a port. This can be helpful to protect certain DMX addresses, for example houselights or Special FX from accidental use.

Enter the Range Menu and use the arrow keys to define the start channel of the range. Press Enter and define the end channel of the range.

Another Enter press confirms the range and it will be indicated in the display.



```
DMX 5 ↑
Range 025-480 ↓
```

## Framerate

The refresh rate of the DMX port can be set from 10Hz up to 39Hz, and to "Follow Input"

With Follow Input the rate is set identical to the incoming rate of Artnet packages, increasing accuracy.

## DMX Merge Options

DMX values from different sources can be merged together, and the merged results can be used as the source for the DMX outputs.

The router uses Merging slots and there is only a limited amount available (currently 4).

Each slot has two input connections that need to be defined. Afterwards the Merge slot number can simply be used in the DMX configuration as a source.



Hit Enter to access the settings menu for the current Merge Slot.

### Mode

- |               |  |
|---------------|--|
| <b>OFF</b>    | The Merger is disabled.  |
| <b>HTP</b>    | The inputs are merged using Highest Takes Precedence.  |
| <b>LTP</b>    | The inputs are merged using Latest Takes Precedence. This is calculated for each DMX channel separately.   |
| <b>Toggle</b> | The inputs are not merged but actually switched on a Latest Takes Precedence Rule.<br>Any change in one Input will toggle the entire Merger to use that inputs DMX values. |

### Input (1 and 2)

- |                            |   |
|----------------------------|---|
| <b>DMX 1-8</b>             | The input is read from the Data of the DMX port.                    |
| <b>MRG 1-4</b>             | The input is read from a Merge Slot                                 |
| <b>IP-A<br/>(Universe)</b> | The input is read from one Universe of the Artnet stream for Node A |
| <b>IP-B<br/>(Universe)</b> | The input is read from one Universe of the Artnet stream for Node B |



Always disable Mergers that are not used as they use processing resources.

# IP Configuration

Menu # 7 allows setting the IP addresses for the box.

By default a unique IP address is generated for each box and no configuration is necessary.

Also the Factory Presets set the IP addresses accordingly for use with Maxxyz, Maxedia and Martin Show Designer.

## Automatic IP

The Automatic IP setting uses an Artnet compliant algorithm to generate unique IP addresses for the Ether2DMX8 router.

Three options are available.



The check mark indicates the current active setting.

**IP Address**      2.x.x.x  
**Subnet:**        255.0.0.0

**IP Address**      10.x.x.x  
**Subnet:**        255.0.0.0

**IP Address**      2.x.x.x + 10.x.x.x  
**Subnet:**        255.0.0.0

## Custom IP

It is possible to set a completely customized IP address if necessary. The address can be set differently for Node A (DMX 1-4) and Node B (DMX 5-8). One limitation is that the Subnet is identical for both Nodes.

### Changing the IP Address

Enter the Custom IP and select Node A.



Custom IP NodeA  
Address                   ↓

Hit Enter to set the Address:



A↑↑↓                   002.168.017.075

The three arrows indicate what numbers are modified with the up and down arrow. To step forward to the second set of numbers, use ENTER. To step backwards to the previous set of numbers, use MENU.

To confirm the changes, press Enter on the last set of numbers.

### Changing the Subnet

Use the arrow down key to access the next menu screen.



Custom IP NodeA↑  
Subnet

Hit Enter to set the Subnet:



A↑↑↓                   255.255.000.000

# User Preset

In addition to the factory presets the Ether2DMX8 router also allows storage of 10 User Presets.

The presets includes all settings for each DMX port, the IP settings and all System settings. It does not include any stored Cue data.

## Store Preset

To save a User Preset scroll to Menu # 2 and hit Enter. Scroll down with the arrow key until "Save As" is shown on the display.



Hit Enter for the next step and use the arrow keys to browse to the desired User Preset number (1 - 10).



Hit Enter to confirm the Preset number.

In the next step a custom name can be defined with maximum 10 characters.



The arrow above a character indicates the position for adjustment. Use the arrow up and down key to browse the characters.

Use Menu/Enter to step forward and backward through the screen.

To confirm the name, hit Enter at the last character.

The preset is not stored until the last character is confirmed.

## Load Preset

Recalling a User Preset is identical to recalling a Factory Preset.

In Menu # 2 use the arrow key to scroll down the list of User Presets, then confirm the desired Preset with OK.



A screenshot of a device's menu interface. The background is black, and the text is white. The first line reads "2: User Presets" followed by an upward-pointing arrow cursor. The second line reads "OK MyPreset02".

# DMX Monitor

This menu allows to visualize the DMX data on a specific port.

## Value View

This view allows to see one specific DMX channel on one specific port.



### Menu

Exits the Value View

### Enter

Cycles the DMX Ports from 1 to 8



Arrows are used to select the DMX channel

The current value is shown as a DMX (255) and percentage (100%) value.

To the left of the percentage value a graphical indicator shows a visual representation of the DMX level.

To the right is an indication of the minimum (-025) and maximum (+255) value for the specific DMX channel.

## Graphical View

This view allows monitoring the values of 10 DMX channels at the same time.



### Menu

Exits the Graphical View

### Enter

Cycles the DMX Ports from 1 to 8



Arrows are used to select the DMX channels in blocks of 10

The top row shows the value as 0-F in 10% steps.

The bottom row shows a graphical representation of the DMX level.

# DMX Test

DMX Test is used to generate DMX data for troubleshooting and testing purposes. It is a slow gradual cycle between the DMX values of 20 and 200.

## DMX Port Test

The test data can be sent to individual ports or to all of them simultaneously.



A screenshot of a blue LCD display showing the menu options "5: DMX Test" and "Ports". The text is in a white, monospaced font.

Select "Ports" with Enter.



A screenshot of a blue LCD display showing the menu options "Test Ports" and "DMX All" with a downward arrow cursor pointing to "DMX All".

Use the arrow keys and select ALL or a single Port with Enter.



A screenshot of a blue LCD display showing "DMX Test PortAll" and "Value 020" followed by a blank space and a cursor.

The test data is sent and indicated in the display.

To Exit the test sequence use MENU.

## Artnet Universe Test

Test values can also be generated as Artnet traffic and sent to a specific Universe number.

```
5:DMX Test
IP
```

Confirm with Enter:

```
Test IP ↑
Univ 002 (0-1) ↓
```

Use the arrow keys to change the Universe Numbers. Confirm with Enter to start the test.

```
DMX Test IP #002
Value 020 _
```

The test data is sent and indicated in the display.

To Exit the test sequence use MENU.

# Cues

The Ether2DMX8 router has the ability to store 99 cues. A cue is a snapshot of the current levels (4096 channels) on all 8 DMX ports.

It is not possible to record streaming DMX data.

However the router allows to assign fade and hold times to the cues, and multiple cues can be linked to each other to create a simple cue list.

Only one cue can be played back at any given time. Playing back a cue will block any other DMX processing until the cue is stopped.

Switch Inputs can be linked to cues, allowing the Ether2DMX8 router to function as a simple playback device for installations, trade show booth or a simple retail environment.

It is also possible to assign a cue to be run on startup of the router.

Cues have many different uses. Some examples are:

- Standalone playback
- Backup Cues in case of controller failure
- Emergency Lighting Cue for a fire alarm via the switch inputs
- Automatic Lamp Strike during system power on
- Lighting cue without the need for a lighting console to be turned on
- Lighting cues triggered by standard light switches

## Recording Cues

To record a cue go to Menu # 3 and use the arrow keys until "Save" is displayed.

```
3: Cues      ↑
Save        ↓
```

Press Enter to confirm.

```
Save As      #12↑
+OK cue12   ↓
```

Select the desired Cue # with the arrow keys, then hit Enter to confirm.

In the next step a custom name can be defined with maximum 10 characters.

```
Prev      ↓
Next     cue12
```

The arrow above a character indicates the position for adjustment. Use the arrow up and down key to browse the characters.

Use Menu/Enter to step forward and backward through the screen.

To confirm the name, hit Enter at the last character.

The cue is not stored until the last character is confirmed.

## Linking and Timings

Cues can be linked together. A link is a simple way to connect multiple cues into a list that are executed one by one.

With the Links Menu it is also possible to define the fade time for a cue and the hold time until the next cue is started.

Links are assigned to the source cue, for example Cue 1 has a link to Cue 5, Cue 5 has a link to Cue 8 and Cue 8 links back to Cue 1 (at which point the list starts from its beginning)

```
3: Cues      ↑
Link        ↓
```

Press Enter to confirm.

```
Link Cue#01  ↑
TestCue
```

Browse to the Cue number that needs to be modified.

```
Fade↓ Hold →Cue
    12s    3s    5
```

The arrow indicates what is being modified.

<b>Fade</b>	Defines the fade time it takes to fade up the current one
<b>Hold</b>	Defines the time a cue waits before the next cue is triggered
<b>→Cue</b>	Indicates the next Cue to follow after the current one
--	indicates that no cue will be triggered (ending the cuelist)

Both times are added together:

First the cue fades with the defined time (12s), then the cue holds for the defined time (3s). This is a total of 15s for the current cue, at which point Cue 5 is triggered.

With linking it is possible to create multiple such loops.

### Examples

Cue 1,2,3,4,5 → Link back to Cue 1

Cue 5,10,15,16

Cue 51,52 → Link back to Cue 1

With some smart linking there are many useful possibilities.

## Playing Back Cues

Play back of cues is started from the RUN Menu.

```
3: Cues      ↑
Run          ↓
```

Press Enter to confirm, then use the arrow keys to browse to the desired Cue number.

```
Run Cue      ↑
←GO  MyCue08 ↓
```

Enter will start the cue and a check mark will be placed next to the RUN.

To stop cue playback, arrow up until OFF is shown. Press Enter to stop the cue playback.

```
3: Cues      ↑
← OFF ✓      ↓
```

## Cue Browser

The cue browser replaces the default home display.

The idea is to have a simple browser menu that allows selecting any cue to be executed without the need to use the Menu system.

For example the Ether2DMX8 router could be left with a client who then can pick from several preprogrammed cues for his lighting system.

The cue browser is activated in Menu # 3.

```
3: Cues      ↑
   Browser OFF
```

Press Enter, then use the UP arrow to turn the Browser ON and the down arrow to turn it OFF.

```
Cue Browser  ON
              OFF
```

With the browser activated, the home display will now look like this:

```
>>MyCue08  <<
Browse
```

Press BROWSE to select the desired Cue.

```
**MyCue05  **↑
GO          ↓
```

GO will start the Cue and return to the previous display.

Turn the browser off in Menu # 3 to see the normal home display screen again.

# Switch Inputs

On the back of the Ether2DMX8 router are 8 Switch Inputs that are connected with a terminal block. They are simple contact closures that can be activated with any switch or relay.

Each Switch Input can be assigned one single action to execute. The higher Input number has the higher priority and only one input can be processed at a time. This means whenever input 8 is closed, the status of inputs 1-7 is ignored.

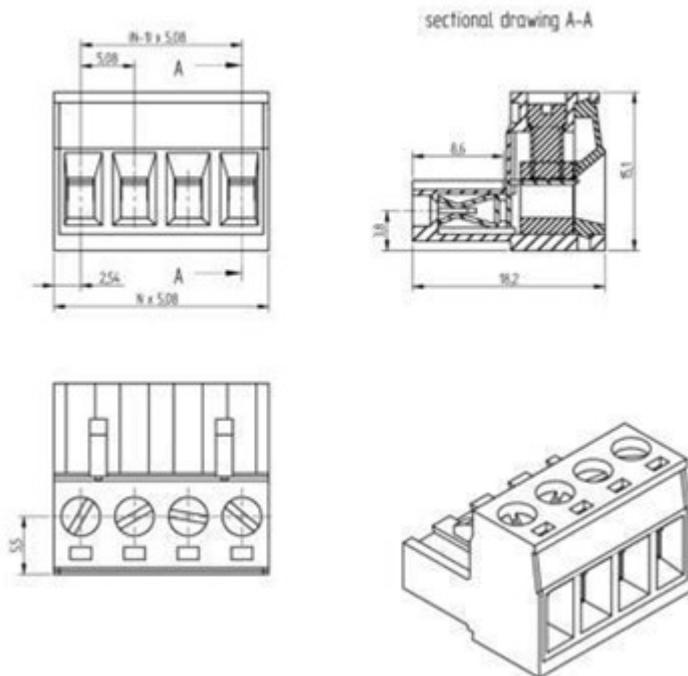
Please note that when a cue is assigned to an input it will run as long as the input is closed.

## Hardware

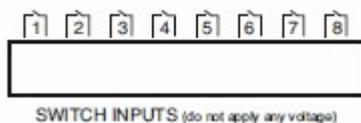
Required Terminal blocks are provided with the router.

4x Terminal Block 4 Pin Wuerth Electronics  
Type 351 Part Number: 6913S1500004

[Manufacturer Link](#)



Connect a switch or temporary switch for the desired contact closure number. Do not switch to a common ground. Every pair has to be wired separately.



Do not apply any voltage to contacts. Doing so will damage the router and is not covered under warranty !

## Configuration

Browse to Menu # 9 "Switch Input" and press Enter.

```
9: Switch Input ↑
Input 2 FPr#6
```

Use the arrow keys to select the input to be modified and confirm with Enter.

```
Input2 Target ↑
TO Console ↓
```

The switch input can be assigned the following actions:

<b>OFF</b>	The Input is disabled
<b>To Console</b>	The Input is sent via Artnet to trigger an action on the lighting controller
<b>Preset</b>	Factory Presets 1-8
<b>User</b>	User Presets 1-10
<b>Cues</b>	Cues 1-99

# System

## Device Name

The device name is used to identify the Ether2DMX8 in a larger Artnet System. The maximum length for the name is 10 characters.

Browse to the "Device Name" entry in the menu and press Enter to see the current name assigned to the box.



Press Enter again to modify the name.

The arrow above a character indicates the position for adjustment. Use the arrow up and down key to browse the characters.

Use Menu/Enter to step forward and backward through the screen.

To confirm the name, hit Enter at the last character.

## Backup

All system settings including all cue data can be backed up internally or to an external USB flash device.



Available options are

- **USB Export**      Saves to external USB drive
- **USB Import**      Loads settings from external USB drive
- **Save to Flash**      Saves to internal flash drive
- **Load from Flash**      Loads from internal flash drive

## Display Timeout

To preserve the LCD display of the Ether2DMX8 router it is possible to turn off the display after a certain period of inactivity.



The image shows a blue LCD screen with white text. The top line reads 'Display Timeout' followed by an upward-pointing arrow. The second line shows a checkmark followed by 'Always On'.

Available options are

- **Always On**                      The display never turns off
- **10sec, 30sec, 1min, 2min**    The display turns off after the specified time

## Display Scroll

The home display can be set to automatically scroll through the 4 available screens.



The image shows a blue LCD screen with white text. The top line reads 'Display Scroll' followed by an upward-pointing arrow. The second line shows a checkmark followed by '2sec' and a downward-pointing arrow.

The interval can be set to:

- **OFF**
- **2 seconds**
- **10 seconds**
- **30 seconds**

## DMX Hold

This defines what happens to the DMX ports if the Artnet Source is no longer sending valid data (e.g. cable unplugged)

By default the Ether2DMX8 keeps sending the last DMX data until the box is turned off or rebooted.



The timeout for the DMX data can be set to:

- **Forever**
- **10minutes**
- **5 minutes**
- **60 seconds**
- **30 seconds**
- **10 seconds**
- **OFF**

When set to OFF the data will stop immediately when the Artnet stream stops.

## Startup Settings

This defines what is sent to the 8 DMX ports after turning on the Ether2DMX8.



Available Startup Options are:

- **Wait for Data (no DMX output until DMX traffic is available)**
- **All DMX 0 (a value of 0 is sent to every DMX channel)**
- **Cues 1-99**

## Firmware Update

New firmware can easily be installed from a USB flash drive.  
When the menu is entered the current installed firmware is shown.



Firmware  
Ver. 0.51 B1.23↓

The current operations firmware is indicated with **Ver. 0.51** and the firmware for the DMX ports is indicated as **B1.23**

### To update the firmware use the following steps:

1. Download the latest firmware from the Martin Service pages [www.martin.com/service](http://www.martin.com/service)
2. Copy the firmware to a USB flash drive into a folder with the label "E2DMX8"
3. Insert the drive into the back USB port and enter the firmware menu.
4. Use the arrow down key to access the update menu.



Firmware  
Update from USB ↑

5. Press Enter to start the firmware installation. The box will automatically reboot at the end of the update.

## Reset to Default Settings

All custom settings and user data can be removed and the Ether2DMX8 router can be reset to factory defaults.



Use with caution as the settings can not be restored if they are not backed up externally.

Browse down the system Menu to "RST to Default"

```
10: System      ↑
RST to Default ↓
```

Confirm with Enter:

```
RST to Default
←Yes          SURE?
```

Press Enter to recall all factory defaults.

# Ether2DMX8 Web Interface

All settings of the router can be accessed from a web interface.

This interface is opened from any standard web browser (Internet Explorer, Firefox or Safari)

Use a RJ45 crossover cable if the computer is connected directly to the Ether2DMX8, or connect to the ethernet switch used for the Artnet System.

## Assigning a static IP Address in Windows XP

To connect to the Web Interface it is necessary to set a static IP Address of the computer so it can communicate with the router.

As an example we will show how this is done in Windows XP.  
This works similar in Windows 7, Windows Vista and MAC OS.  
Refer to documentation of those operating system how to set a static IP address.

On a Windows XP system follow these steps:

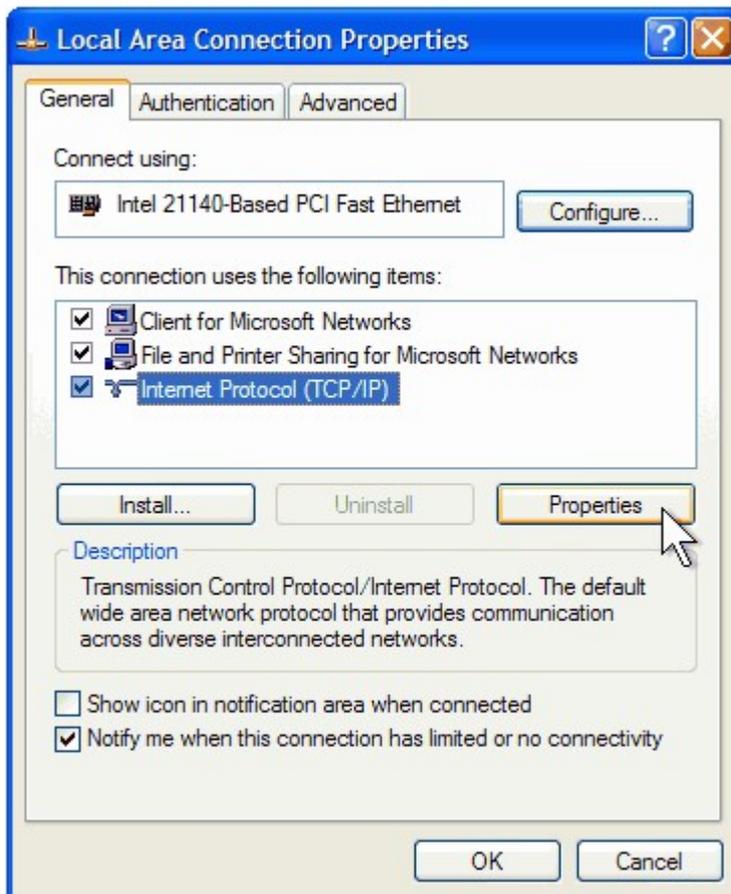
HOLD the Windows Flag Key  and hit the "R" key. This will open the RUN command box.

Type "ncpa.cpl" into the RUN box.

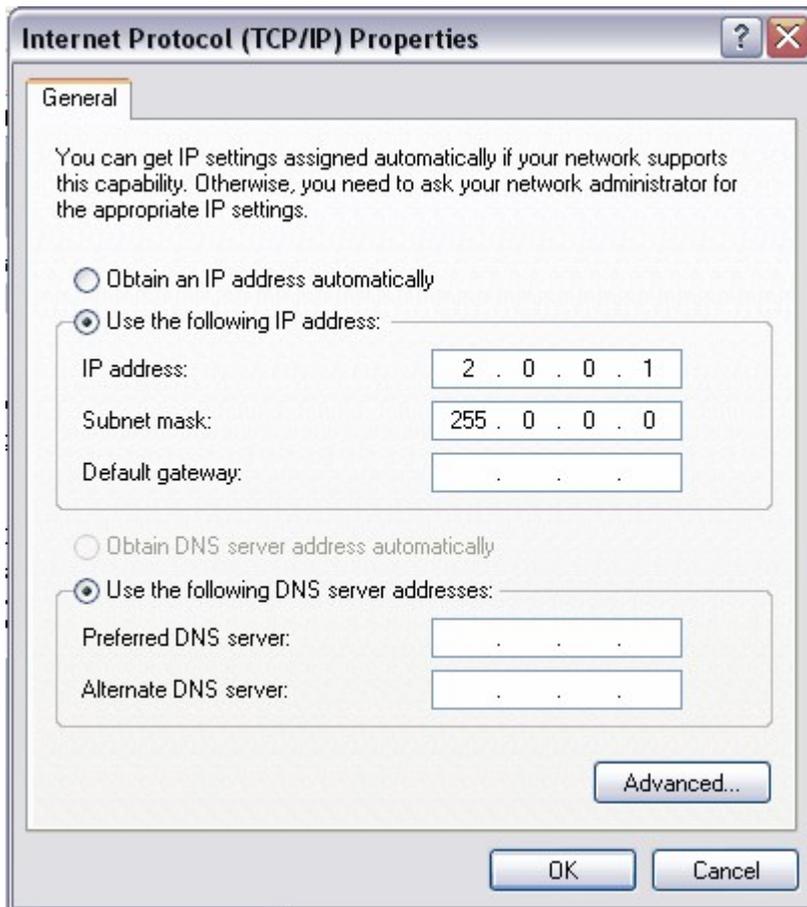


This will open the Network Connections Window.

Find the network adapter that is used to connect to the Ether2DMX8 router and right click it. Select "Properties" and confirm with a left click.



Highlight "Internet Protocol" and click on Properties.



Set the IP address to 2.0.0.1 and the Subnet to 255.0.0.0, If the router shows a 10.x.x.x address, use 10.0.0.1 for the PC IP instead. The first digit of your PC and the Ether2DMX8 must match.

Confirm with OK and close all Windows.

## Connecting to the Router

Open a web browser (Internet Explorer, Firefox or Safari)

On the Home Display of the Ether2DMX8 you will find its current IP address.



```
002.168.017.075r
Ether2DMX8 Ax Bx
```

Type this address as **2.168.17.75** into the address bar of the web browser.

The web browser will open the home page of the web interface.

## Status Page

The home page of the web interface displays the current status of the router. It also shows the current firmware version.

	Mode	Source	Universe	Range	Framerate
DMX 1	Output	Artnet	1	1 - 512	Follow Input
DMX 2	Output	Artnet	2	1 - 512	Follow Input
DMX 3	Output	Artnet	3	1 - 512	Follow Input
DMX 4	Output	Artnet	4	1 - 512	Follow Input
DMX 5	Output	Artnet	5	1 - 512	Follow Input
DMX 6	Output	Artnet	6	1 - 512	Follow Input
DMX 7	Output	Artnet	7	1 - 512	Follow Input
DMX 8	Output	Artnet	8	1 - 512	Follow Input

## Factory Presets

Select Factory Presets in the menu tree on the left and use the drop down to pick the desired one. Enter the Universe Number when needed and confirm by clicking on "Load".



The screenshot shows a dark blue interface titled "Factory Presets". Below the title is a horizontal bar with the text "Factory Presets". There are two input fields: "Select Preset :" with a dropdown menu showing "Maxxyz" and "Universe :" with a text box containing "1". Below these fields is a blue button labeled "Load".

## User Preset

User Presets can be saved and loaded. Select the desired preset and click "Load". To save a preset, enter a name and select a preset number from 1-10, then confirm with "Save".



The screenshot shows a dark blue interface titled "User Presets". Below the title is a horizontal bar with the text "User Presets". There are two sections. The first section has "Select Preset :" with a dropdown menu showing "user02 : user02" and a red button labeled "Load". The second section is titled "Save The Current Settings as Preset" and has "Name :" with a text box containing "PresetName" and "Preset Number :" with a dropdown menu showing "user03 : Available". Below these fields is a red button labeled "Save".

## Cues

The screenshot displays a control panel with three main sections: Run Cue, Save Cue, and Link Cue. Each section has a title bar and specific input fields and buttons.

- Run Cue:** Features a 'Select Cue :' label, a dropdown menu showing 'Cue01 : CueName', and two buttons labeled 'Go' and 'Stop'.
- Save Cue:** Features a 'Cue Name :' label with a text input field containing 'CueName', a 'Cue Number :' label with a dropdown menu showing 'Cue01 : CueName', and a 'Save' button.
- Link Cue:** Features a 'Current Cue :' label with a dropdown menu showing 'Cue01 : CueName', a 'Next Cue :' label with a dropdown menu showing 'Cue03 : cue03', a 'Fade Time (sec) :' label with a text input field containing '0', a 'Hold Time (sec) :' label with a text input field containing '1', and a 'Save' button.

To trigger a cue choose the cue number with the drop down, then click GO. Use "STOP" to stop playback of the cue.

To save a cue, enter the cue name and pick a cue number from the drop down. Click "Save" to confirm.

To Link cues, modify the entries and click "Save" to confirm.

## DMX Configuration

**DMX Configuration**

**DMX 1**

<b>Mode</b>	Output
<b>Source</b>	Artnet
<b>Universe</b>	1
<b>Channel Range</b>	1 512
<b>Framerate (Hertz)</b>	40

**Save**

Modify the settings a for a specific DMX port as needed, then confirm with "Save".

## DMX Merging



**DMX Configuration**

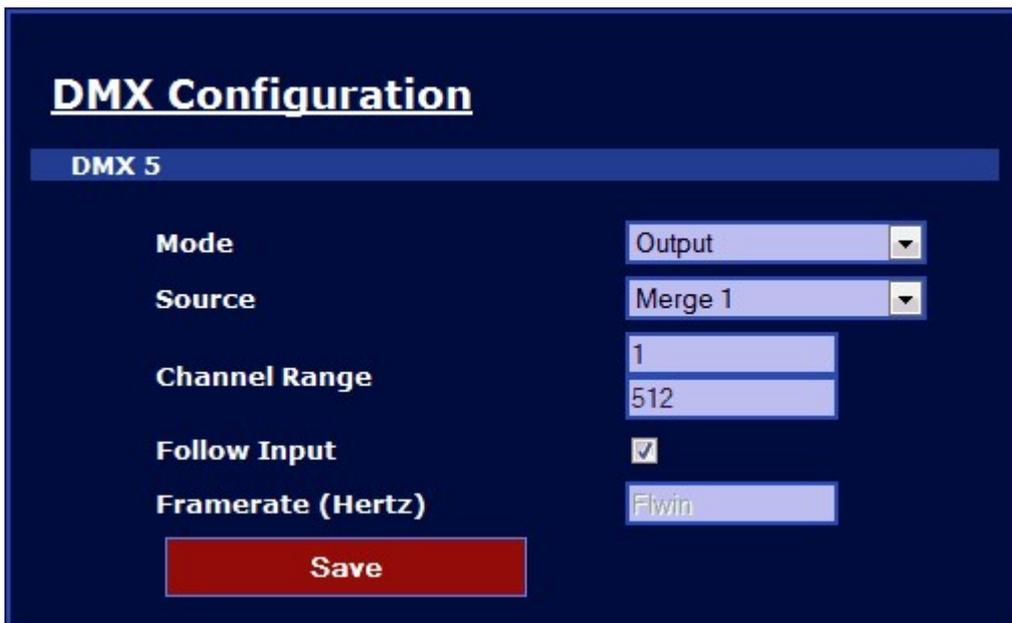
**Merge 1**

Mode	HTP
Input 1	DMX 1
Input 2	DMX 2

**Save**

Modify the settings as needed, press SAVE to confirm.

Use the Merge Slot then as a [source](#) for a DMX port.



**DMX Configuration**

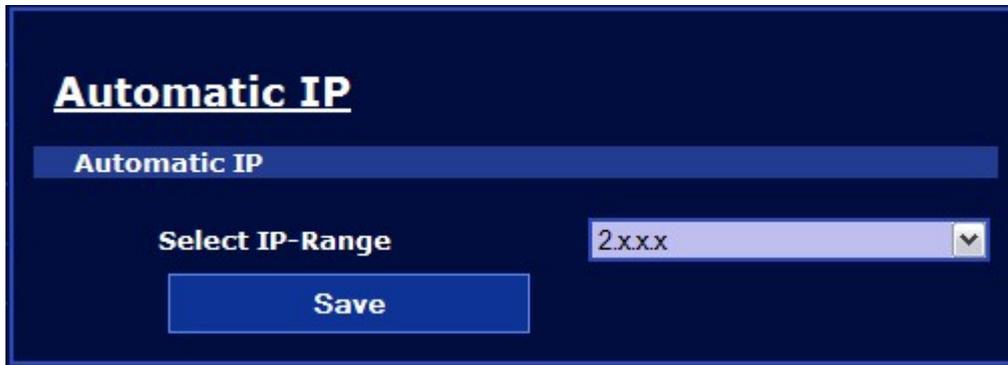
**DMX 5**

Mode	Output
Source	Merge 1
Channel Range	1 512
Follow Input	<input checked="" type="checkbox"/>
Framerate (Hertz)	Flwin

**Save**

## IP Configuration

Use automatic IP to set the 2.x.x.x, 10.x.x.x and 2 /10 combined IP range.



The screenshot shows a dark blue interface titled "Automatic IP". Below the title is a horizontal bar with the text "Automatic IP". Underneath, there is a label "Select IP-Range" followed by a dropdown menu showing "2xxx" with a downward arrow. Below the dropdown is a blue button labeled "Save".

Use the custom IP settings to modify the IP address manually.



The screenshot shows a dark blue interface titled "Custom IP". Below the title is a horizontal bar with the text "node A". Underneath, there is a label "IP-Address" followed by a text input field containing "002.168.017.075". Below this is another horizontal bar with the text "node B". Underneath, there is a label "IP-Address" followed by a text input field containing "002.169.017.075". Below this is another horizontal bar with the text "SubNet". Underneath, there is a label "Subnet" followed by a text input field containing "255.000.000.000". At the bottom is a blue button labeled "Save".

## Switch Inputs

**Switch Input 1**

Switch 1

Select Mode Start Cue

Select Cue Cue03 : cue03

Save

Select the mode and the referring option. See the chapter on [Switch Inputs](#) for more information.

## System

**System**

**System Settings**

Device Name :

Display Timeout :

Display Scroll :

DMX Hold :

Startup :

---

**Load Settings**

Load settings :

---

Any changes to the System settings have to be confirmed with "Save"

**Load Settings** allows to remote upload of a backup file to the Ether2DMX8 across the web interface. **Save Current Settings** allows backup of the router across the web interface and create a backup file on the local PC.

Click [HERE](#) to download the current config file

This page will refresh in a few moments

# Ether2DMX8 Factory Defaults

This table shows the factory settings for the Ether2DMX8.

<b>Factory Preset</b>	Maxxyz Universe 1-8
<b>Cue</b>	OFF
<b>IP</b>	Automatic 2.x.x.x
<b>Switch Inputs</b>	All OFF
<b>Device Name</b>	Ether2DMX8
<b>Display Timeout</b>	Always On
<b>Display Scroll</b>	Off
<b>DMX Hold</b>	Forever
<b>Startup</b>	Wait for Data

# Decimal to Artnet Conversion Table

Dec.	Artnet Subnet	Univ.									
1	0	0	33	2	0	65	4	0	97	6	0
2	0	1	34	2	1	66	4	1	98	6	1
3	0	2	35	2	2	67	4	2	99	6	2
4	0	3	36	2	3	68	4	3	100	6	3
5	0	4	37	2	4	69	4	4	101	6	4
6	0	5	38	2	5	70	4	5	102	6	5
7	0	6	39	2	6	71	4	6	103	6	6
8	0	7	40	2	7	72	4	7	104	6	7
9	0	8	41	2	8	73	4	8	105	6	8
10	0	9	42	2	9	74	4	9	106	6	9
11	0	A	43	2	A	75	4	A	107	6	A
12	0	B	44	2	B	76	4	B	108	6	B
13	0	C	45	2	C	77	4	C	109	6	C
14	0	D	46	2	D	78	4	D	110	6	D
15	0	E	47	2	E	79	4	E	111	6	E
16	0	F	48	2	F	80	4	F	112	6	F
17	1	0	49	3	0	81	5	0	113	7	0
18	1	1	50	3	1	82	5	1	114	7	1
19	1	2	51	3	2	83	5	2	115	7	2
20	1	3	52	3	3	84	5	3	116	7	3
21	1	4	53	3	4	85	5	4	117	7	4
22	1	5	54	3	5	86	5	5	118	7	5
23	1	6	55	3	6	87	5	6	119	7	6
24	1	7	56	3	7	88	5	7	120	7	7
25	1	8	57	3	8	89	5	8	121	7	8
26	1	9	58	3	9	90	5	9	122	7	9
27	1	A	59	3	A	91	5	A	123	7	A
28	1	B	60	3	B	92	5	B	124	7	B
29	1	C	61	3	C	93	5	C	125	7	C
30	1	D	62	3	D	94	5	D	126	7	D
31	1	E	63	3	E	95	5	E	127	7	E
32	1	F	64	3	F	96	5	F	128	7	F

	Artnet			Artnet			Artnet			Artnet				
Dec.	Subnet	Univ.												
129	8	0	161	A	0	193	C	0	225	E	0			
130	8	1	162	A	1	194	C	1	226	E	1			
131	8	2	163	A	2	195	C	2	227	E	2			
132	8	3	164	A	3	196	C	3	228	E	3			
133	8	4	165	A	4	197	C	4	229	E	4			
134	8	5	166	A	5	198	C	5	230	E	5			
135	8	6	167	A	6	199	C	6	231	E	6			
136	8	7	168	A	7	200	C	7	232	E	7			
137	8	8	169	A	8	201	C	8	233	E	8			
138	8	9	170	A	9	202	C	9	234	E	9			
139	8	A	171	A	A	203	C	A	235	E	A			
140	8	B	172	A	B	204	C	B	236	E	B			
141	8	C	173	A	C	205	C	C	237	E	C			
142	8	D	174	A	D	206	C	D	238	E	D			
143	8	E	175	A	E	207	C	E	239	E	E			
144	8	F	176	A	F	208	C	F	240	E	F			
145	9	0	177	B	0	209	D	0	241	F	0			
146	9	1	178	B	1	210	D	1	242	F	1			
147	9	2	179	B	2	211	D	2	243	F	2			
148	9	3	180	B	3	212	D	3	244	F	3			
149	9	4	181	B	4	213	D	4	245	F	4			
150	9	5	182	B	5	214	D	5	246	F	5			
151	9	6	183	B	6	215	D	6	247	F	6			
152	9	7	184	B	7	216	D	7	248	F	7			
153	9	8	185	B	8	217	D	8	249	F	8			
154	9	9	186	B	9	218	D	9	250	F	9			
155	9	A	187	B	A	219	D	A	251	F	A			
156	9	B	188	B	B	220	D	B	252	F	B			
157	9	C	189	B	C	221	D	C	253	F	C			
158	9	D	190	B	D	222	D	D	254	F	D			
159	9	E	191	B	E	223	D	E	255	F	E			
160	9	F	192	B	F	224	D	F	256	F	F			

# Specifications

## PHYSICAL

Length	288mm (11.3 in.)
Width	482.2mm (19.0 in.), 19 inch rack mount
Height	43.6mm (1.7 in.). 1U
Weight	3.6kg
Operating Temperature	0° - 40° Celsius
IP Rating	IP 20

## ELECTRICAL

AC Power	100-240 VAC nominal, 50-60 Hz
Fuses	2x500 mA (time delay) CAUTION: DOUBLE POLE/NEUTRAL FUSING.

## CONNECTIONS

DMX In/Out	8x 5pin XLR female
AC Power Input	3-pin IEC male socket
AC Power Output	3-pin IEC female socket (6A max)
USB Out	USB-A
USB In	USB-B
10/100 Base-T Ethernet	Ethercon RJ45
Keyboard	PS2 or USB
Mouse	PS2 or USB
Monitor	VGA 15-pin
Link	Ethercon RJ45
Switch Inputs	Contact Closures 4x Terminal Block 4 Pin Wuerth Electronics Type 351 PN: 6913S1500004 <a href="#">Manufacturer Link</a>

## Ordering Information

Ether2DMX8	P/N 90758130
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**Martin**

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[www.martin.com](http://www.martin.com) • Olof Palmes Allè 18 • 8200 Aarhus N • Denmark  
Tel: +45 8740 000 • Fax +45 8740 0010